I/We Claim:

1.   An apparatus for supporting a multicast session over a wireless channel, the apparatus comprising:

a plurality of data ports;

a routing module that directs packets through the plurality of data ports; and

a processor configured to perform the steps of:

(a)   receiving a request that a wireless terminal wishes to join to at least one requested layer of a multicast service;

(b)   receiving bandwidth requirements for the at least one requested layer;

(c)   sending the bandwidth requirements to a node in order to configure the multicast session;

(d)   receiving information about a number of layers that the wireless terminal can receive over the wireless channel; and

(e)   configuring a multicast stream between a multicast content source and a base station through the routing module for the multicast session in response to step (d), wherein multicast content transported by the multicast stream is transmitted by the base station over the wireless channel in order to support the multicast session.

2.   The apparatus of claim 1, wherein step (b) comprises:

receiving the bandwidth requirements for the at least one requested layer from the wireless terminal.

3.   The apparatus of claim 1, further comprising a memory connected to the processor, and wherein step (b) comprises fetching the bandwidth requirements for the at least one requested layer from a data structure that is contained in the memory.

4.   The apparatus of claim 1, wherein step (e) comprises the steps of:

(i)   configuring the multicast stream in accordance with the information about the number of layers that the wireless terminal can receive in response to step (d);

(ii)   adapting a transmission bandwidth in a core data network if the transmission bandwidth is not guaranteed in response to step (i) .

5.   The apparatus of claim 4, wherein step (ii) comprises the steps of:

(1)   sending a pause request to an upstream router in order to disable forwarding packets, the packets being associated with a multicast group in response to step (i); and

(2)   sending a resume request to the upstream router in order to enable forwarding the packets in response to step (i).

6.   A wireless terminal that supports a multicast service over a wireless channel in a wireless communications system, the wireless terminal comprising:

a wireless interface;

a memory;

a processor that connects to the wireless interface in order to communicate over the wireless channel and that connects to the memory, the processor configured to perform the steps of:

(a)   sending a request that the wireless terminal wishes to join to at least one requested layer corresponding to a multicast group of the multicast service; and

(b)   sending bandwidth requirements for the at least one requested layer in response to step (a).

7.   The wireless terminal of claim 6, wherein the processor is configured to provide the further step of:

(c)   sending signal quality information about a received signal over the wireless channel.

8.   The wireless terminal of claim 7, wherein the signal quality information comprises at least one signal to noise measurement corresponding to the received signal over the wireless channel.

9.   The wireless terminal of claim 6, wherein the processor is configured to perform the further step of:

(d)   sending a notification that the wireless terminal desires to be disconnected from a multicast session.

10.   The wireless terminal of claim 6, further comprising a user interface module that connects to the processor in order to receive an input from a user of the wireless terminal, and wherein the processor is configured to perform the further steps of:

(e)   displaying a list of multicast services and receiving from the user a first selection and;

(f)   receiving from the user a second selection and displaying a desired level of multicast service, wherein the desired level of service corresponds to a first multicast group address; and

(g)   displaying an actual level of multicast service, wherein the actual level corresponds to information about a number of layers that is currently supported over a wireless channel.

11.   The wireless terminal of claim 10, wherein the processor is configured to perform the further steps of:

(h)   receiving from the user a third selection and displaying a minimum level of multicast service, wherein the minimum level corresponds to a third multicast group address.

12.   A method that provides transmission of a multicast session over a wireless channel in a wireless communications system, the method comprising the steps of:

(a)   receiving a request that a wireless terminal wishes to join to at least one requested layer of a multicast service;

(b)   receiving bandwidth requirements for the at least one requested layer;

(c)   sending the bandwidth requirements to a node in order to configure the multicast session;

(d)   receiving information about a number of layers that the wireless terminal can receive over the wireless channel; and

(e)   configuring a multicast stream in response to step (d), wherein transported data is transmitted over the wireless channel in order to support the multicast session.

13.   The method of claim 12, wherein step (b) comprises:

receiving the bandwidth requirements for the at least one requested layer from the wireless terminal.

14.   The method of claim 12, wherein step (b) comprises:

fetching the bandwidth requirements for the at least one requested layer from a data structure.

15.   The method of claim 12, wherein step (e) comprises the steps of:

(i)   configuring the multicast stream in accordance with the information about the number of layers that the wireless terminal can receive in response to step (d);

(ii)   adapting a transmission bandwidth in a core data network if the transmission bandwidth is not guaranteed in response to step (i) .

16.   The method of claim 15, wherein step (ii) comprises the steps of:

(1)   sending a pause request to an upstream router in order to disable forwarding packets, the packets being associated with a multicast group in response to step (i); and

(2)   sending a resume request to the upstream router in order to enable forwarding the packets in response to step (i).

17.   A computer-readable medium containing instructions for controlling a computer system to provide transmission of a multicast session over a wireless channel for a wireless communications system, the instructions performing the steps of:

(a)   receiving a request that a wireless terminal wishes to join to at least one requested layer of a multicast service;

(b)   receiving bandwidth requirements for the at least one requested layer;

(c)   sending the bandwidth requirements to a node in order to configure the multicast session;

(d)   receiving information about a number of layers that the wireless terminal can receive over the wireless channel; and

(e)   configuring a multicast stream for the multicast session in response to step (d), wherein multicast content transported by the multicast stream is transmitted over the wireless channel.

18.   The computer-readable medium of claim 17, wherein step (e) comprises the steps of:

(i)   receiving information about at least one layer that is being transmitted to the wireless terminal; and

(ii)   configuring the multicast stream to transport the at least one layer.

19.   The computer-readable medium of claim 17, further comprising instructions that perform the step of:

receiving the bandwidth requirements for the at least one requested layer from a wireless terminal.

20.   The computer-readable medium of claim 17, further comprising instructions that perform the step of:

fetching the bandwidth requirements for the at least one requested layer from a data structure.

21.   The computer-readable medium of claim 17, further comprising instructions that perform the steps of:

configuring the multicast stream in accordance with the information about the number of layers that the wireless terminal can receive; and

adapting a transmission bandwidth in a core data network if the transmission bandwidth is not guaranteed .

22.   The computer-readable medium of claim 21, further comprising instructions that perform the steps of:

sending a pause request to an upstream router in order to disable forwarding packets, the packets being associated with a multicast group; and

sending a resume request to the upstream router in order to enable forwarding the packets.

23.   A method that provides transmission of a multicast session over a wireless channel for a wireless terminal, the method comprising the steps of:

(a)   sending a request that the wireless terminal wishes to join to at least one requested layer corresponding to a multicast group of a multicast service; and

(b)   sending bandwidth requirements for the at least one requested layer in response to step (a).

24.   The method of claim 23, further comprising the step of:

(c)   sending signal quality information about a received signal over the wireless channel.

25.   The method of claim 24, further comprising the step of:

(d)   receiving at least one layer associated with the multicast session in accordance with the signal quality information in step (c).

26.   The method of claim 24, further comprising the step of:

(d)   sending a notification that the wireless terminal desires to be disconnected from the multicast session.

27.   The method of claim 24, wherein the signal quality information comprises at least one signal to noise measurement corresponding to the received signal over the wireless channel.

28.   A method in a wireless terminal for displaying information about a multicast service supported by a wireless communications system, the method comprising the steps of:

(a)   displaying a list of multicast services and receiving a first selection from a user and;

(b)   receiving a second selection from the user and displaying a desired level of multicast service in response to step (a), wherein the desired level of service corresponds to a first multicast group address; and

(c)   displaying an actual level of multicast service, wherein the actual level corresponds to a number of layers that is currently supported over a wireless channel.

29.   The method of claim 28, further comprising the step of:

(d)   displaying a minimum level of multicast service in response to step (b), wherein a third selection is received from the user and wherein the minimum level corresponds to a third multicast group address.

30. A computer-readable medium containing instructions for controlling a computer system to provide transmission of a multicast session over a wireless channel in a wireless communications system for a wireless terminal, comprising instructions that perform the steps of:

(a) sending a request that the wireless terminal wishes to join to at least one requested layer corresponding to a multicast group of a multicast service;

(b) sending bandwidth requirements for the at least one requested layer; and

(c) sending at least one signal to noise measurement corresponding to a received signal over the wireless channel.

31. The computer-readable medium of claim 30, further comprising instructions that perform the step of:

(d) sending a notification that the wireless terminal desires to be disconnected from the multicast session.

32.   An apparatus for supporting a multicast session, the apparatus comprising:

a plurality of data ports;

a routing module that directs packets through the plurality of data ports; and

a processor configured to perform the steps of:

(a)   receiving a request that a wireless terminal wishes to join to at least one requested layer of a multicast service;

(b)   receiving bandwidth requirements for the at least one requested layer;

(c)   sending the bandwidth requirements in order to configure the multicast session;

(d)   receiving information about a number of layers that the wireless terminal can receive over the wireless channel;

(e)   configuring a multicast stream between a base station and a multicast content source through the routing module in accordance with the information about the number of layers that the wireless terminal can receive in response to step (d);

(f)   sending a pause request to an upstream router in order to disable forwarding packets, the packets being associated with a multicast group in response to step (e); and

(g)   sending a resume request to the upstream router in order to enable forwarding the packets in response to step (e).